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# Differentiating risk: The association between relationship type and risk of repeat victimization of domestic abuse

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## ABSTRACT

Much of the literature on domestic abuse focuses on those in intimate partner relationships or ex-partners, however, in the UK the Home Office definition also includes those in familial relationships. The Domestic Abuse, Stalking, and Harassment and Honour-Based Violence Risk Assessment assumes homogeneous risk factors across all relationships. This paper therefore examines the risk factors for repeat victimization of domestic abuse by relationship type between the victim and perpetrator in a UK police force. Using police-recorded domestic abuse incident and crime data, a logistic regression model found that the most similar repeat victimization risk profiles for 14,519 victims were amongst partners and ex-partners, with both relationships demonstrating the greatest degree of gender asymmetry, compared with other familial relationships. Physical violence was the strongest predictor of repeat victimization and was a statistically significant predictor for ex-partners, partners, and all familial relationships. Coercive behaviour was also a significant predictor for all relationships apart from partners, but not at the same magnitude as physical abuse. Recognizing the difference in risk by relationship type may assist the police in deciding the most appropriate response and interventions to reduce the risk of further harm.

## INTRODUCTION

The demand on police resources for domestic abuse is considerable. In the year ending March 2022, 17% of all crime in England and Wales was recorded as domestic abuse related, equating to 910,980 crimes. In addition to this, there were also 589,389 domestic abuse-related incidents (ONS, 2022). Having the ability to recognize those most at risk is essential in identifying victims earlier, reducing harm, and improving and prioritizing access to support and justice.

Domestic abuse often involves a pattern of behaviour over time, rather than a one-off or a series of incidents (Hester, 2013; Myhill and Hohl, 2016; Stark, 2007). Whilst this cannot all be captured within police data, repeat victimization is reported to account for between 17 and 59% of all domestic abuse-related crimes and incidents (Bland and Ariel, 2015; Felson *et al.*, 2005). Identifying those most at risk of repeat victimization could therefore help to target and design interventions for those at risk of further harm, whilst also reducing demand on the police (Barnham *et al.*, 2017; Bland and Ariel, 2015; Cattaneo and Goodman, 2005; Kerr *et al.*, 2017; Morgan *et al.*, 2018; Phoenix, 2023; Robinson and Clancy, 2020).

Much of the literature focuses on domestic abuse between intimate partners or ex-partners (e.g. Dobash and Dobash, 2004; Hoyle, 2012; Johnson, 2006; Walby and Towers, 2017; Walby *et al.*, 2014). However, the Home Office definition of domestic

abuse also includes abuse that takes place between family members, such as parent and older child aged 16 and over (and vice versa), siblings, and other family relationships.

Any incident or pattern of incidents of controlling, coercive or threatening behaviour, violence or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of gender or sexuality. This can encompass but is not limited to the following types of abuse: psychological, physical, sexual, financial and emotional. (Home Office, 2013)

Walby and Towers (2018) advocate the need to mainstream the relationship between victims and the perpetrator into the analysis of violent crime, but few studies have looked at the variation in risk by those who report to the police. This paper therefore examines the risk factors for repeat victimization, builds profiles by relationship type, and challenges the assumption that risk factors are homogenous.

## Risk factors for repeat victimization

There is a wide literature on risk factors associated with domestic abuse. Of the studies focussing on repeat victimization, certain demographic and socio-economic subgroups of victims are found to be at heightened risk. For example, with demographic

characteristics the chances of a repeat incident are higher for women and younger people (ONS, 2018; Ringland, 2018; Walby and Allen, 2004; Walby and Towers, 2017). A number of scholars also advocate the inclusion of perpetrator characteristics into repeat analysis (Cattaneo and Goodman, 2005; Morgan *et al.*, 2018). Known risk factors for recidivism include the perpetrator being male and younger (Klein, 2009; Puffett, 2004). Cattaneo and Goodman (2005) did not find strong evidence of a relationship between ethnicity of the perpetrator and recidivism. Yet, in other studies variation is found, for example, Bland *et al.* (2022) found that Asian/Asian British, Black/Caribbean/African, and Mixed/Multiple ethnic groups over-represented in the proportion of suspects, likely reflecting concentrated disadvantage among these minoritized populations. It is important to note that the overrepresentation of Black, Asian, and minoritized communities in the criminal justice system in the UK has been attributed to racial bias, systematic discrimination, and oppression (Lammy, 2017) and reinforces the need to take an intersectional approach to analysis (Cox, 2015; Crenshaw, 1991; Strid *et al.*, 2013).

Several socio-economic and environmental factors have also been associated with repeat victimization. Low socio-economic status is a known risk factor (Cooper *et al.*, 2012; Faergemann *et al.*, 2010), with victimization increasing women's risk of unemployment and reduced income (Salmi and Danielsson, 2014). Neighbourhood-level predictors of police-reported repeat victimization include living in an urban area (Radojevic *et al.*, 2020), anti-social behaviour, income, and population density (Weir, 2019).

Many of the situational risk factors associated with each domestic abuse incident are captured through risk assessment. Risk assessment tools have drawn on academic research and practice to enable practitioners to assess and appropriately respond to risk (Barrow-Grint *et al.*, 2022; Millsted and Coghlan, 2016). The usefulness of risk assessments in identifying those at increased likelihood of repeat victimization has been found to be variable and overall, it has been found that the onset of domestic abuse is easier to predict than recurrence (Van der Put *et al.*, 2019). Internationally there are a range of risk assessment instruments in use, either using actuarial tools, which are based on empirically established relationships between risk factors and outcomes of interest, or structured clinical judgment tools, which are based on the judgement of a professional. Overall actuarial tools have been found to outperform clinical methods (Van der Put *et al.*, 2019). The individual actuarial tools have slightly different foci, with some designed to assess recidivism, others the risk of lethality, and some both. This has been found to impact the predictive validity for repeat victimization. For example, the Ontario Domestic Assault Risk Assessment, which assesses both lethality and recidivism (DVRISC, 2024), was found to effectively predict new assaults of intimate partner violence against partners and ex-partners (Hilton *et al.*, 2004), whereas the Danger Assessment Scale, which focuses on the likelihood of lethality for women from intimate personal violence, found the instrument significantly contributed to predicting short term abuse recurrence amongst arrested perpetrators (Campbell *et al.*, 2009; Goodman *et al.*, 2000). However, the Domestic Violence Safety Assessment Tool, developed in Australia and used with both

men and women and aimed at identifying the threat of future harm, was found to be a poor predictor of repeat victimization (Ringland, 2018). The instrument most widely used in the UK with is the Domestic Abuse, Stalking and Harassment and Honour Based Violence (DASH). The DASH was designed as tool for those working with victims of domestic abuse to assess and identify those at high risk of harm, particularly serious violence and homicide (Richards, 2009). Critique of the DASH has found it to have very little predictive performance for identifying the most vulnerable victims (Turner *et al.*, 2021). The question around criminal history of perpetrators was found to be significant in two studies (Almond *et al.*, 2017; Turner *et al.*, 2021) and the only other risk questions associated with repeat victimization in Turner *et al.*'s (2021) research were perpetrator problems with alcohol, and the victim being separated and being frightened.

Few studies break down the risk of repeat victimization by relationship type. Most focus on intimate partners and where the broader definition is used (including familial abuse), there is no differentiation between risk by relationship type. There have, however, been studies on the risk of domestic homicides across different relationships (Lin *et al.*, 2023) and also more discrete studies of risk factors in relationship types where the victim and perpetrator are not current partners which will now be discussed.

#### *Ex-partners*

One such relationship where risk factors are exacerbated by the relationship type are ex-partners. Separation from a partner does not automatically end violence in a relationship, in fact, ex-partners are at increased risk of victimization (Brennan *et al.*, 2010; Brownridge, 2006; Walby and Myhill, 2001). Leaving or trying to end a relationship increases the risk of lethality, particularly for women (Campbell *et al.*, 2003; Stark and Hester, 2019) with the 2020 femicide census finding that 37% of those killed by a current or former partner were reported to have separated or attempted to separate from the men for killed them (Femicide Census, 2020).

Theoretically post separation abuse has been aligned with Johnson's (2005) concept of intimate partner terrorism, behaviour that consists of both violent and coercive and controlling behaviour (Stark and Hester, 2019). Post-separation abuse can consist of legal abuse, particularly where there are children and custody proceedings ongoing; economic abuse; threats an endangerment to children; and harassment and stalking (Spearman *et al.*, 2023).

#### *Parents*

Another relationship type that has unique risk factors is that between children and parents. It is also a relationship type that sees abuse span the lifecourse, with prevalence in perpetration amongst adult children mainly during earlier stages of their adulthood or when their parents are older. The nature of the abuse in these subgroups can be quite different.

Abuse between young adult children, who are still living at home, is a major concern for family support agencies and something that is recognized as being under-researched, compared with domestic abuse amongst partners (Galvani, 2010). Like abuse between intimate partners there is often a pattern of abusive

behaviour, rather than a one-off incident (Miles and Condry, 2016; Wilcox, 2012), however, under-reporting is thought to be very high due to parents being highly resistant to estrangement and criminalization of their child (Galvani, 2010; Miles and Condry, 2016).

Abuse perpetrated by children against their older parents, is also significantly underreported. Research by Safe Lives (2016) found that 44% of victims aged 61 and over were abused by an adult family member, compared with 6% of those aged 60 and under. This form of abuse is also more likely to be financial in nature (Brandl and Cook-Daniels, 2002; WHO, 2022). Being able to differentiate the risk of repeat victimization by age of the perpetrator will be key in analysis of this relationship type.

### Siblings

A relationship type where there is a dearth of literature is abuse between siblings (Elliot *et al.*, 2020). Whilst being recognized as the most common form of child abuse, with incidence rates ranging from 60 to 80% (Goodman *et al.*, 2000; Hoffman and Edwards, 2004), further research is needed to explore the relationship between gender, age, and siblings (Button and Gealt, 2010). In England and Wales, in the 2 years from the end of March 2017, there were 13 domestic homicides where the victim and perpetrator were siblings (ONS, 2022 in; Barrow-Grint *et al.*, 2022). Some argue that unlike intimate partner violence, abuse between siblings shows gender symmetry, with equal levels of victimization between male and female siblings (Duncan, 1999; Goodwin and Roscoe, 1990). However, other studies have found asymmetry, with male siblings significantly more likely to engage in sibling abuse (Eriksen and Jensen, 2009; Kiselica and Morrill-Richards, 2007; Krienert and Walsh, 2011; Relva *et al.*, 2013). Theoretically, it has been proposed that sibling abuse can be modelled by combining feminist theory, conflict theory, and social learning theory (Hoffman and Edwards, 2004). Like other forms of familial abuse it is believed that parents are unlikely to call the police unless the violence is particularly bad (Fitz-Gibbon *et al.*, 2018).

## METHODS

### Study area

This study used data from one of the largest non-metropolitan forces in the UK. The force has a mixture of rural, urban, and coastal areas with concentrated deprivation but also some very affluent areas. The area is not as ethnically diverse as the whole of England and Wales, with Black, Asian, and minoritized communities making up only 6.4% of the population, compared with 14.0% nationally (NOMIS, 2011).

### Data

The force had a separate database recording both incidents of domestic abuse and those that were converted to crimes. The dataset recorded details of the incident or crime location, the date and time, age, gender, ethnicity, and address of both the victim and the perpetrator and the relationship between the victim and perpetrator.

Between November 2011 and December 2014, there were 88,136 incidents of domestic abuse reported in this force. During this time there were 46,871 victims, with 34% of victims reporting more than one incident. For each incident, the victim and perpetrators age, gender, ethnicity, postcode, relationship type, and risk assessment (standard, medium, or high) was recorded. Victims' full responses to the 27 questions asked through the DASH risk assessment were also recorded in a separate spreadsheet. The data were combined using the incident number, which was recorded on both spreadsheets.<sup>1</sup> The DASH answers were all binary variables, with a yes or no response.<sup>2</sup>

### Defining repeat victimization

Prior to analysis a definition of repeat victimization was constructed. There was a repeat flag in the incident data, but the reliability of this field was reported to be questionable. The data were divided into three time periods; December 2011–April 2012 was the pre-evaluation period; May 2012–June 2014 the evaluation period; and July–December 2014, the post-evaluation period. The number of incidents across the whole time period, including the pre and post-evaluation period, was calculated for each victim who reported an incident during the evaluation period. This allowed a 6-month window either side for a repeat to occur. If more than one incident was reported the incident was classified as a repeat. A dummy variable was then created stating whether or not the incident was a repeat. As logistic regression requires that observations are independent so only the details of victims' first incident recorded were included in the analysis.

### Demographic data

The relationship between the victim and perpetrator was re-coded into broad relationship types; partner; ex-partner; and all familial. All familial was then further broken down into sibling, parent, and other familial relationship (which included child, which ideally would have been included as a separate variable, but the sample size was too small in this dataset). Dummy variables were created for victim and perpetrator gender and ethnicity, relationship type, and risk classification.

As socio-economic status is not directly measured by the police data a proxy was found. The Output Area Classification (OAC) 2011 uses demographic, household composition, housing, socio-economic, and employment data from the census to classify Output Areas (approximately 125 households) into three levels of hierarchy: supergroups, groups, and subgroups (ONS, 2014<sup>3</sup>). For this analysis the eight supergroups were used.

### Measures of violence and coercive control

The DASH questionnaire consists of 27 questions, all of which have a binary yes or no response. To create a more parsimonious

<sup>1</sup>Approximately half of the data had no DASH risk answers linked to the incident data. The pattern of missingness was monotone, with all responses to these variables blank if the questions were not asked or answered. The police force confirmed that it was quite common for a victim to refuse to answer the questions. It was also not an essential requirement for the risk assessment questions to be filled in for standard risk until 2013, so the number of incidents with no DASH answers was much higher in 2011 and 2012. To control for the change in policy regarding asking DASH assessments to standard risk victims the year of the incident was calculated and a new 'Year' field created using the date field. A new binary field was created which captured whether or not a DASH risk assessment had been completed.

<sup>2</sup>A full list of the DASH questions and their variable names can be found in Appendix A.

<sup>3</sup>See Appendix B for a full description.

model and to identify underlying concepts, a tetrachoric bivariate correlation and exploratory factor analysis<sup>4</sup> were run to identify underlying relationships between the variables. The analysis split the variables into physical violence and coercive control factors (Table 1). Previous research has found that coercive control often accompanies physically violent behaviour, but coercive control may be experienced without physical violence, particularly in the earlier stages of abusive behaviour (Johnson, 2006; Stark, 2006). Therefore, having these two factors separated will enable this hypothesis to be tested. Two new variables 'physical violence' and 'coercive control' were created using the mean summated scores of all the variables in each factor.<sup>5</sup> These variables were then used in the regression model, rather than all 27 DASH variables.

### Analysis

#### Repeat analysis

All of the analysis was conducted using Stata 14.1. Listwise deletion was used where there was missing data.<sup>6</sup> Overall, there were 14,519 victims included in the repeat victimization analysis. Univariate and bivariate analysis was run to identify differences between those victims that were repeat victims and those that were not. Logistic regression was used to identify characteristics of repeat victimization. The analysis was run for all victims and then re-run for each broad group of victim and perpetrator relationships.

## RESULTS

### Characteristics of repeat victims

Table 2 outlines the characteristics of the 14,519 victims in the evaluation period, of whom 44% were repeat victims. Where the incident had been classified as high risk, 52% were repeat victims, compared with 49% of medium and 39% standard risk. 48% of repeat victims were female, compared with 32% male and 46% were White, whereas 39% were from Black, Asian, and other minoritized communities. In incidents where the perpetrator was female 34% were repeat victims, whereas when they were male there were 47%. There were only small differences in the proportion of repeat victims when the perpetrator was White (45%) compared with Black, Asian, and other minoritized communities (43%). The proportion of repeat victims was highest when the relationship between the victims and perpetrator was ex-partner (53%), compared with 39% for partner, 40% parent, 30% sibling, and 27% other familial relationship. With the OAC classification, the highest proportion of repeat victims were in the constrained city dweller group (49%), followed by

<sup>4</sup>Using an orthogonal and oblique rotation.

<sup>5</sup>Using the mean to standardize the factors allows the coefficient values to be compared and their influence on each other and other variables modelled.

<sup>6</sup>One of the issues created by using the latent variables from the factor analysis was that the multiple imputation command will not run with the factor analysis. Unfortunately, due to the monotone missingness this also meant that a confirmatory factor analysis using structural equation modelling (SEM) could not overcome this issue. A trade-off therefore had to be made between potential bias and reduced sample size from using listwise deletion and being able to interpret the results more easily using latent variables. As the full dataset had been used in the earlier analysis with the imputed data and the results when compared with using the listwise deletion method were very similar, it was decided to investigate the repeat data without using any imputation, but including the summated values created in the exploratory factor analysis.

**Table 1:** Oblique rotated factor pattern (Loadings  $\geq 0.40$ )

| Variable                       | Factor loading |
|--------------------------------|----------------|
| Physical violence              |                |
| Police trouble                 | 0.67           |
| Hurt others                    | 0.66           |
| Drugs alcohol or mental health | 0.62           |
| Threat to kill                 | 0.57           |
| Weapon                         | 0.54           |
| Hurt animals                   | 0.53           |
| Threaten to hurt children      | 0.52           |
| Hurt children                  | 0.47           |
| Strangle                       | 0.43           |
| Kuder-Richardson = 0.64        |                |
| Coercive control               |                |
| Worse                          | 0.75           |
| Abuse more often               | 0.73           |
| Isolated                       | 0.69           |
| Control                        | 0.64           |
| Frightened                     | 0.44           |
| Depressed                      | 0.42           |
| Harassment                     | 0.40           |
| Kuder-Richardson = 0.68        |                |

*N* = 31,045.

ethnicity central and multicultural metropolitan (47%), hard pressed (46%), cosmopolitans (45%), urbanities (44%), and rural residents (35%). The proportion of repeat victims in 2012 (63%) was almost double the number in 2014 (32%), with 46% in 2013. The mean age of repeat victims was 35 compared with 37 for those who did not experience a repeat incidence. The mean summated score for physical violence and coercive control scale was significantly higher for repeat victims (0.252 and 0.393, respectively) compared with those who did not experience a repeat incident (0.195 and 0.304, respectively).

### Characteristics of relationship types

Table 3 shows the characteristics of victims based on the relationship between the victim and perpetrator. Overall, 11% of victims were classified as high risk, compared with 39% classified as medium risk and 50% standard risk. Ex-partners had very similar proportions, but partners had more classified as high risk (14%) and medium risk (42%) and fewer as standard (44%). Siblings, parents, and other familiar all had a smaller proportion of victims classified as high risk (6, 7, and 6%, respectively). Victim gender asymmetry was seen across all relationships and was highest for partners (84%), followed by ex-partners (81%), parents (72%), siblings (64%), and other familial relationships (64%). For victim ethnicity overall 93% were White, with similar proportions across all relationships, apart from partner (89%) and parents (96%). Similar levels of gender asymmetry were seen for perpetrator gender, with 80% of perpetrators male, with the proportions lower for siblings (68%), and other familial relationships (62%). Similar patterns to victim ethnicity were observed for perpetrators with partners having the highest proportion of

**Table 2:** Descriptive and bivariate statistics: demographics by repeat victimization.

|   | Total N = 14,519 (%) | Repeat victim (%) | Not repeat victim (%) | $\chi^2$ (df)   |
|---|----------------------|-------------------|-----------------------|-----------------|
| Risk classification                                     |                      | 6,433 (44.3)      | 8,086 (55.7)          |                 |
| High  | 1,613 (11.1)         | 841 (52.1)        | 772 (47.9)            | 45.1 (1)*       |
| Medium  | 5,678 (39.1)         | 2,787 (49.1)      | 2,891 (50.9)          | 86.2 (1)*       |
| Standard  | 7,228 (49.8)         | 2,805 (38.8)      | 4,423 (61.2)          | 176.5 (1)*      |
| Victim gender   |                      |                   |                       |                 |
| Female  | 11,473 (79.0)        | 5,468(47.7)       | 6,005 (52.3)          |                 |
| Male  | 3,045 (21.0)         | 964 (31.7)        | 2,081 (68.3)          | 249.7 (1)*      |
| Victim ethnicity  |                      |                   |                       |                 |
| White   | 13,221 (93.1)        | 6,011 (45.5)      | 7,210 (54.5)          |                 |
| Black, Asian, and other<br>minoritized commu-<br>nities | 974 (6.9)            | 375 (38.5)        | 598 (61.4)            | 17.3 (1)*       |
| Perpetrator gender                                      |                      |                   |                       |                 |
| Female  | 2,966 (20.4)         | 1,012 (34.1)      | 1,954 (65.9)          |                 |
| Male  | 11,552 (79.6)        | 5,421 (46.9)      | 6,131 (53.1)          | 156.9 (1)*      |
| Perpetrator ethnicity                                   |                      |                   |                       |                 |
| White   | 12,742 (91.1)        | 5,761 (45.2)      | 6,981 (54.8)          |                 |
| Black, Asian, and other<br>minoritized commu-<br>nities | 1,240 (8.9)          | 533 (43.0)        | 707 (57.0)            | 2.27 (1)        |
| Victim/perpetrator relationship                         |                      |                   |                       |                 |
| Ex-partner  | 7,105 (49.9)         | 3,752 (52.8)      | 3,353 (47.2)          | 317.8 (1)*      |
| Partner   | 4,088 (28.7)         | 1,595 (39.0)      | 2,493 (61.0)          | 76.3 (1)*       |
| Parent  | 1,352(9.5)           | 546 (40.4)        | 806 (59.6)            | 11.5 (1)*       |
| Sibling   | 569 (4.0)            | 172 (30.2)        | 397 (69.8)            | 50.6 (1)*       |
| Other relationship                                      | 1,135 (8.0)          | 312 (27.4)        | 823 (72.5)            | 148.7 (1)*      |
| OAC classification                                      |                      |                   |                       |                 |
| Rural residents   | 731 (5.04)           | 253 (34.6)        | 478 (65.4)            | 29.4 (1)*       |
| Cosmopolitans   | 508 (3.5)            | 227 (44.7)        | 281 (55.3)            | 0.03 (1)        |
| Ethnicity central                                       | 418 (2.9)            | 195 (46.7)        | 223 (53.3)            | 0.96 (1)        |
| Multicultural metro-<br>politan                         | 1,519 (10.5)         | 706 (46.5)        | 813 (53.5)            | 3.2 (1)         |
| Urbanites   | 3,364 (23.2)         | 1,461 (43.4)      | 1,903 (56.6)          | 1.4 (1)         |
| Suburbanites  | 2,147 (14.8)         | 834 (38.8)        | 1,313 (61.2)          | 30.5 (1)*       |
| Constrained city<br>dwellers                            | 2,633 (18.1)         | 1,281 (48.7)      | 1,352 (51.3)          | 24.6 (1)*       |
| Hard pressed  | 3,198 (22.0)         | 1,476 (46.2)      | 1,722 (53.8)          | 5.6 (1)*        |
| Year  |                      |                   |                       |                 |
| 2012  | 1,879 (12.9)         | 1,186 (63.1)      | 693 (36.9)            |                 |
| 2013  | 8,475 (58.4)         | 3,915 (46.2)      | 4,560 (53.8)          |                 |
| 2014  | 4,165 (28.7)         | 1,332 (32.0)      | 2,833 (68.0)          | 538.2 (1)*      |
|   | Mean (SD)            | Mean (SD)         | Mean (SD)             | t (df)          |
| Victim age  | 36.0 (13.2)          | 34.7 (12.1)       | 37.0 (14.0)           | 10.2 (14,395)*  |
| Physical summated score                                 | 0.221 (0.191)        | 0.252 (0.1967)    | 0.195 (0.182)         | -17.9 (13,267)* |
| Coercive summated score                                 | 0.333 (0.267)        | 0.393 (0.0034)    | 0.304 (0.003)         | -14.6 (13,327)* |

\* $P < 0.05$ .

**Table 3:** Descriptive and bivariate statistics: characteristics of relationships.

|   | Total N = 14,519 (%) | Ex-partner (%) | Partner (%)   | Sibling (%)   | Parent (%)    | Other familial (%) |
|---|----------------------|----------------|---------------|---------------|---------------|--------------------|
| Risk classification                                     |                      |                |               |               |               |                    |
| High  | 1,613 (11.1)         | 817 (11.5)     | 567 (13.9)    | 38 (6.7)      | 96 (7.1)      | 68 (6.0)           |
| Medium  | 5,678 (39.1)         | 2,744 (38.6)   | 1,717 (42.0)  | 199 (35.0)    | 555 (41.1)    | 377 (33.2)         |
| Standard  | 7,228 (49.8)         | 3,544 (49.9)   | 1,804 (44.1)  | 332 (58.4)    | 701 (51.9)    | 690 (60.8)         |
| Victim gender   |                      |                |               |               |               |                    |
| Female  | 11,473 (79.0)        | 5,783 (81.4)   | 3,441 (84.2)  | 364 (64.0)    | 974 (72.0)    | 728 (64.1)         |
| Male  | 3,045 (21.0)         | 1,321 (18.6)   | 647 (15.8)    | 205 (36.0)    | 378 (28.0)    | 407 (35.9)         |
| Victim ethnicity  |                      |                |               |               |               |                    |
| White   | 13,221 (93.1)        | 6,610 (94.8)   | 3,559 (89.2)  | 515 (93.1)    | 1266 (95.5)   | 1,030 (93.5)       |
| Black, Asian, and other<br>minoritized commu-<br>nities | 974 (6.9)            | 365 (5.2)      | 431 (10.8)    | 38 (6.9)      | 60 (4.5)      | 72 (6.5)           |
| Perpetrator gender                                      |                      |                |               |               |               |                    |
| Female  | 2,966 (20.4)         | 1,341 (18.9)   | 662 (16.2)    | 182 (32.0)    | 283 (20.9)    | 426 (37.5)         |
| Male  | 11,552 (79.6)        | 6,302 (81.1)   | 3,425 (83.8)  | 387 (68.0)    | 1069 (79.1)   | 709 (62.4)         |
| Perpetrator ethnicity                                   |                      |                |               |               |               |                    |
| White   | 12,742 (91.1)        | 6,302 (91.9)   | 3,447 (87.6)  | 514 (93.3)    | 1,249 (94.6)  | 1,006 (94.6)       |
| Black, Asian, and other<br>Minoritized commu-<br>nities | 1,249 (8.9)          | 554 (8.1)      | 487 (12.4)    | 37 (6.7)      | 71 (5.4)      | 73 (6.4)           |
| OAC classification                                      |                      |                |               |               |               |                    |
| Rural residents   | 731 (5.04)           | 316 (4.5)      | 224 (5.5)     | 23 (4.0)      | 79 (5.8)      | 73 (6.4)           |
| Cosmopolitans   | 508 (3.5)            | 256 (3.6)      | 157 (3.8)     | 15 (2.6)      | 26 (1.9)      | 39 (3.4)           |
| Ethnicity central                                       | 418 (2.9)            | 216 (3.0)      | 132 (3.2)     | 9 (1.6)       | 19 (1.4)      | 30 (2.6)           |
| Multicultural metro-<br>politan                         | 1,519 (10.5)         | 770 (10.8)     | 453 (11.1)    | 70 (12.3)     | 97 (7.2)      | 104 (9.2)          |
| Urbanites   | 3,364 (23.2)         | 1,710 (24.1)   | 974 (23.8)    | 110 (19.3)    | 292 (21.6)    | 229 (20.2)         |
| Suburbanites  | 2,147 (14.8)         | 958 (13.5)     | 596 (14.6)    | 104 (18.3)    | 274 (20.3)    | 180 (15.9)         |
| Constrained city dwell-<br>ers                          | 2,633 (18.1)         | 1,350 (19.0)   | 712 (17.4)    | 97 (17.1)     | 203 (15.0)    | 210 (18.5)         |
| Hard pressed  | 3,198 (22.0)         | 1,529 (21.5)   | 839 (20.5)    | 141 (24.8)    | 362 (26.8)    | 270 (23.8)         |
| Year  |                      |                |               |               |               |                    |
| 2012  | 1,879 (12.9)         | 997 (14.0)     | 476 (11.6)    | 63 (11.1)     | 208 (15.4)    | 105 (9.3)          |
| 2013  | 8,475 (58.4)         | 4,189 (59.0)   | 2,318 (56.7)  | 323 (56.8)    | 797 (59.0)    | 683 (60.2)         |
| 2014  | 4,165 (28.7)         | 1,919 (27.0)   | 1,294 (31.7)  | 183 (32.2)    | 347 (25.7)    | 347 (30.6)         |
|   | Mean (SD)            |                |               |               |               |                    |
| Victim age  | 36.0 (13.2)          | 32.7 (10.5)    | 36.8 (12.4)   | 31.7 (12.8)   | 52.4 (11.4)   | 36.0 (17.7)        |
| Physical summated score                                 | 0.221 (0.191)        | 0.240 (0.201)  | 0.193 (0.180) | 0.231 (0.178) | 0.218 (0.163) | 0.206 (0.186)      |
| Coercive summated score                                 | 0.333 (0.267)        | 0.351 (0.273)  | 0.347 (0.280) | 0.255 (0.271) | 0.296 (0.228) | 0.268 (0.224)      |

N = 14,519 (all incidents), 7,105 (ex-partner), 4,088 (partner), 569 (sibling), 1,352 (parent), 1,135 (other familial).

Black, Asian, and minoritized communities. Overall, the highest proportion of victims were in the urbanities OAC classification (23%) followed by hard pressed (22%), with variation across the relationships. The fewest were in ethnicity central group (3%).

### Repeat incident profiles by relationship type

#### *Type of abuse*

Table 4 shows that when looking at all incidents in the repeat analysis the odds of the incident being a repeat victim are 2.31 higher with every one-unit increase in the physical violence

scale. A one-unit increase on the coercive behaviour scale increases the odds by 1.69, demonstrating that overall incidents with physical or threatened violence are more likely to be reported on more than one occasion by victims. What is particularly interesting is to look at the variation in the odds ratio when the incidents are broken down into the relationship between the victim and the perpetrator. For partners, the odds of a repeat are even higher, at 2.70, for a one-unit increase in the physical violence scale, indicating that physical violence is even more pertinent in patterns of repeat victimization amongst partners who are still together. The odds of a repeat

**Table 4 :** Logistic regression for predictors of repeat victimization

| Dependent variable         |               |            |         |                            |          |         |                |
|----------------------------|---------------|------------|---------|----------------------------|----------|---------|----------------|
| Repeat victimization       |               |            |         |                            |          |         |                |
| Odds ratios                |               |            |         |                            |          |         |                |
| Independent Variables      | All incidents | Ex-Partner | Partner | All familial relationships | Siblings | Parents | Other familial |
| Physical scale             | 2.31***       | 1.90***    | 2.70*** | 2.18**                     | 3.41     | 2.03    | 1.49           |
| Coercive scale             | 1.69***       | 1.75***    | 1.10    | 2.00***                    | 3.11*    | 2.33**  | 1.74           |
| High risk                  | 1.08          | 1.49***    | 0.85    | 0.84                       | 0.33*    | 0.99    | 1.08           |
| Medium risk                | 1.15***       | 1.37***    | 1.03    | 0.97                       | 0.68     | 1.04    | 0.99           |
| Victim age                 | 1.00          | 1.00       | 1.00    | 1.01*                      | 1.01     | 0.99    | 1.01           |
| Victim female              | 2.63***       | 1.98*      | 1.34    | 2.13***                    | 2.26     | 1.80    | 3.21***        |
| Victim age* victim female  | 0.99***       | 0.99       | 0.99    | 0.99                       | 0.97     | 0.99    | 0.98*          |
| Victim white               | 1.34***       | 1.19       | 1.24    | 1.19                       | 0.96     | 2.04    | 1.42           |
| Perpetrator male           | 1.07          | 1.35       | 1.36    | 0.95                       | 0.83     | 1.00    | 0.78           |
| Perpetrator white          | 1.00          | 0.93       | 1.03    | 1.34                       | 1.56     | 0.53    | 2.18           |
| Rural Residents            | 0.66***       | 0.74*      | 0.60**  | 0.58**                     | 1.59     | 0.64    | 0.30**         |
| Cosmopolitans              | 0.99          | 0.95       | 0.93    | 0.97                       | 2.85     | 1.04    | 0.74           |
| Ethnicity central          | 1.04          | 1.06       | 1.00    | 0.87                       | 0.40     | 2.13    | 0.82           |
| Multicultural Metropolitan | 1.03          | 0.94       | 1.07    | 1.01                       | 1.04     | 1.32    | 0.92           |
| Urbanites                  | 0.92*         | 0.88       | 0.84    | 0.95                       | 1.96*    | 0.92    | 0.77           |
| Suburbanites               | 0.82***       | 0.80*      | 0.81    | 0.80                       | 1.10     | 0.90    | 0.70           |
| Constrained city dwellers  | 1.07          | 1.09       | 1.06    | 0.96                       | 1.01     | 1.08    | 0.92           |
| Year                       | 0.56***       | 0.58***    | 0.58*** | 0.51***                    | 0.55***  | 0.55*** | 0.49***        |

$N = 13,739$  (all), 6,749 (ex-partner), 3,869 (partner), 3,121 (all familial), 540 (sibling), 1,300 (parent), and 1056 (other familial relationship).  $P = * < 0.05$  \*\*  $< 0.01$  \*\*\*  $< 0.001$ . Log likelihood -8,914.8 (all), -4,352.8 (ex-partner), -2,499.5 (partner), -1,891.8 (all familial), -309.2 (sibling), -788.6 (parent), and -583.1 (other familial).

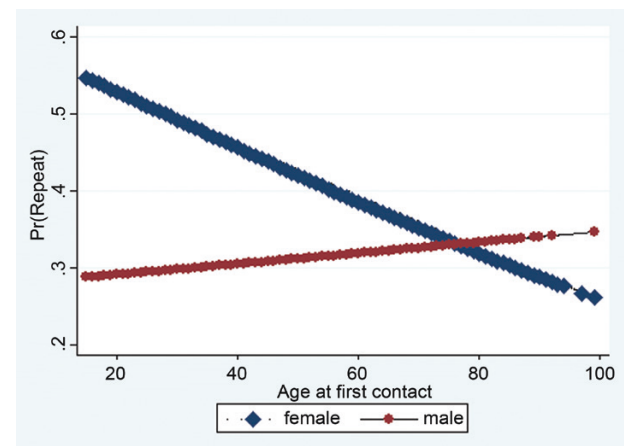
for ex-partners and other familial relationships is lower than the overall rate, with odds of 1.90 and 2.18, respectively. When breaking down the familial relationships further the odds ratios for physical violence are not significant, this could be as a result of the relatively low sample size increasing the standard errors. For further analysis of these relationships a larger dataset, over a longer time period is needed.

Interestingly the variation by relationship type for the odds of repeat victimization based on the score on the coercive scale is not significant across all relationships. The highest odds are for siblings (3.11) and parents (2.33), with the odds 2.00 for all familial relationships. The only other statistically significant relationship was ex-partner, with odds just above the average of all incidents (1.75), but there was not a statistically significant relationship for partners or other familial relationships.

#### Risk classification

An incident being classified as high risk was only statistically significant when the relationship was ex-partner or siblings, with the odds of repeat victimization are 1.49 higher for ex-partners. For siblings, however, the opposite pattern was observed with the odds of a repeat significantly lower (0.33) if the incident was categorized as high risk rather than standard risk.

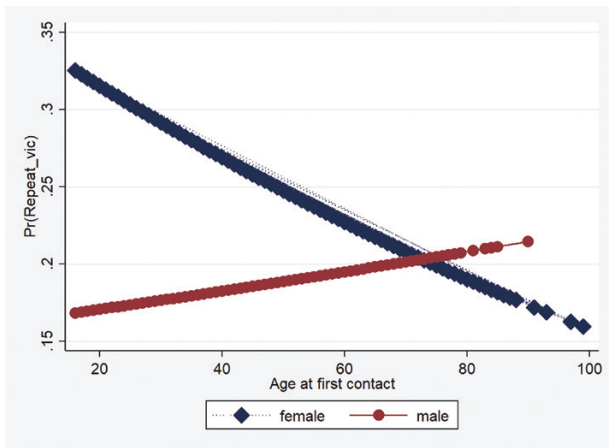
Overall being medium risk slightly increases the odds of repeat victimization by 1.15 compared with standard risk. The odds are slightly higher for ex-partners (1.37). The rest of the relationships are not statistically significant.



**Figure 1:** Interaction between age and gender for all incidents.  $N = 13,739$  CI (95%) = 0.978–0.986.

#### Demographic characteristics

Age is only a significant predictor of repeat victimization in familial relationships with an increase of 1.01 as victims get older. However, when an interaction term is introduced between age and gender, the variable becomes significant for all incidents and other familial relationships (the remaining relationships are not significant). Figures 1 and 2 show the interaction between age and gender for these relationships. Overall, the risk of repeat victimization starts much higher for women than men, but declines



**Figure 2:** Interaction between age and gender for other familial relationships.  $N = 1,059$  CI (95%) = 0.970–1.001.

with age, whereas the opposite pattern occurs for men, with the risk of repeats increasing as age increases. For all incidents, the lines cross at age 78, with the risk of repeats higher for men over this age.

Table 4 also finds that overall victims are more likely to report a repeat incident if they are White, rather than non-White, with the odds increasing by 1.34. The remainder of the relationships were not statistically significant. The odds of a repeat if the perpetrator is male or white is also not significant in any relationship. Unfortunately, due to the relatively low numbers of non-White victims and perpetrators in the dataset it was not possible to demonstrate any interaction effect between gender and ethnicity.

#### OAC

For victims in the Rural Residents OAC, the odds of them reporting a repeat incident are significantly lower than those in the Hard-Pressed Living category (the control variable) across all the relationships. Overall the odds were 0.66, with 0.74 for ex-partners, 0.60 for partners, 0.58 for all familial relationships, and even lower at 0.30 for other familial relationships (the remaining relationships were not statistically significant). Most of the other groups in the classification were not statistically significant, with the exception for urbanites who had lower levels of repeat victimization of 0.92 for all incidents, but higher for siblings (1.96) and suburbanites with 0.82 for all incidents and 0.80 for ex-partners.

#### Year

The control variable of year found that for all incidents the odds of a repeat decreased every year by 0.56 (with odds across the other relationships). This is as expected with only the first incident for repeat victimization included in this analysis.

## DISCUSSION

When looking at the whole dataset, most of the variables that are significant in increasing the odds of repeat victimization were also significant in one or more of the relationship types. The only variable that was not significant when the dataset was

broken down was the victim ethnicity. Here overall the odds of a repeat were increased if the victim was White. This is likely to be a reflection of the potential barriers in reporting for those from Black, Asian, and minoritized communities, which may be as a result of institutional racism, immigration law, culture, and religion and a lack of diversity in front-line services (Hulley *et al.*, 2023).

### Victim profiles

Analysis of the relationship between the victim and perpetrator has found that the profile of victims and the risk factors varies amongst these relationships. The unique profiles that have been identified are discussed below.

#### Partners

The greatest degree of gender asymmetry is seen when the victim and perpetrator are partners, with 84% of victims female, which is higher than familial relationships, which range from 64 to 72%. Therefore, disaggregating domestic abuse by relationship type highlights the gender differences more clearly than amalgamating them into one group. The highest proportion of incidents categorized as high or medium risk are amongst those who are current partners, interestingly though being categorized as high or medium risk does not increase the odds of repeat victimization, which echoes Turner *et al.*'s (2021) findings about the lack of predictive validity in the DASH.

The odds of repeat victimization are increased when there is physical violence, but not when there is coercive control. This finding echoes that of Walby and Towers (2018), who advocate the use of the term 'domestic violent crime', rather than Johnson (2006) who said that intimate violence can start with coercive and controlling behaviour before becoming physically violence. What these results demonstrate is that victims are less likely to report their abuse to the police until they are experiencing violence. This does not, however, mean that it is the first incident and although a widely publicized statistic that victim's experience 35 incidents before reporting to the police has been recently branded a 'mythical number' (Strang *et al.*, 2014), it is still widely viewed that victims would not usually report after the first incident. It should also be noted that the time period analysed was prior to the introduction of the new coercive control legislation in 2015.

The odds of a repeat victimization are statistically significant reduced for those in the Rural Residents subgroup, compared with the Hard-Pressed Living subgroup. It is possible that this is a result of gendered conservatism and the cloak of silence that research has found in rural communities (Barlow *et al.*, 2023).

#### Ex-partners

The relationship profile most similar to partners is ex-partners. Like partners, ex-partners demonstrate a high degree of gender asymmetry, compared with the other family relationships. Also, as seen with partners, there are higher odds of repeat victimization for ex-partners when there is physical violence in the relationship, however, coercive controlling behaviour is also significant for ex-partners, a finding that chimes with research by Douglas (2018) who found that legal processes provides an

opportunity for perpetrators to continue or increase coercive control post-separation.

In terms of neighbourhood type, the odds of repeat victimization are statistically significantly decreased for those in the more middle-class Rural Residents and Suburbanites (compared with the Hard-Pressed Living supergroup). This reflects previous findings that those in the lower social classes are more likely to report abuse, what it cannot explain is whether the middle class still experience abuse but are just less likely to report it to the police (Thomas *et al.*, 2008). The odds of repeat victimization are higher for ex-partners when the incident is classified as high or medium risk, which supports the literature (Cattaneo and Goodman, 2005; Gondolf and Heckert, 2003) that separation puts victims at increased risk.

### Siblings

The profile of victims who are abused by a sibling is quite different to those between intimate partners and parents. The gender of the victims shows more symmetry than other relationships, but there are still more female victims (64%), but not as many as found in other studies (Krienert and Walsh, 2011). Unsurprisingly the mean victim age is the youngest of all the relationship groups. There are very few variables that predict a repeat incident, but siblings have the highest odds of repeat victimization amongst all relationships when there is coercive behaviour in the relationship. However, the incident being high risk reduces the odds of repeat victimization, which may reflect that intervention in high-risk incidents is effective in reducing the risk of a further reported incident. Only Urbanites had a statistically significant odds of repeat victimization, with those living in these areas having almost double the odds compared with the Hard-Pressed Living subgroup.

These patterns raise questions over whether abuse between siblings have the same level of severity, potential escalation, or the same structural causes. Whereas the concept of patriarchy seems a more plausible explanation for abuse between intimate couples, similar to the research findings from Hoffman and Edwards (2004) the different profile of siblings suggests a different type of abuse and theoretical explanation. This relationship warrants further, more qualitative research. The analysis could also be run again with a longer time period to increase the sample size.

### Parents

Where the victim is a parent abused by their adult child the odds of repeat victimization are higher when there is coercive behaviour in the relationship. Financial abuse, a form of coercive behaviour, has been found to be perpetrated by an adult daughter or son in 50% of cases (Centre for Policy on Ageing (CPA), 2009). This group has lower odds of a repeat if the victim is in the Rural Residents and Suburbanites supergroup, demonstrating that the middle class are even less likely to report a repeat incident.

None of the other variables were statistically significant, but like siblings this could have been a result of a relatively small sample size. This group would also benefit from being split into younger and older adult children, as the type of perpetration and causes are theoretically different. Levels of reporting are known to be much lower in those aged over 65, with the Crime Survey

in England and Wales finding only 4% reported their abuse, compared with 21% of younger victims. Victims were found to be more likely to report to their GP or friends and family, which highlights the need to use multi-agency data to understand more about this age group (Barrow-Grint *et al.*, 2022). The levels of domestic homicide in the older adult victim group is also an issue of great concern, with recent analysis finding that 44% of murders were perpetrated by children of the victim, which is much higher than the numbers in younger age groups (Bows, 2019).

## STRENGTHS AND LIMITATIONS OF THE RESEARCH

The findings of this research must be assessed in the context of both the strengths and the limitations of the research. The research set out to understand police-reported repeat victimization in order to reduce police demand and the harm experienced by victims. The research does of course only include those reported their abuse to the police, which we know is only around 21% of victims (Flatley, 2016). This study cannot therefore be assumed to represent those who do not report their abuse to the police. There are personal, societal, and organizational reasons why victims' do not report to the police and factors such as gender, ethnicity, migrant status, economic resilience, whether children are involved, trust and confidence in the police, and individuals own risk assessment can influence reporting behaviour (Barrow-Grint *et al.*, 2022). The research also makes the assumption that those who go on to experience further harm will report it to the police. Of course, if victims' have a negative experience of reporting their first incident, then they may not choose to report again, or may seek help elsewhere, which would not be captured in this data. The analysis also assumes that repeat victimization is accurately reported, but recent research has found issues with the measurement of repeated abuse in police data. These include fragmented units of measurement across more than one information system; inconsistencies in the recording of personal details; multiple ways of identifying domestic abuse; and information being recorded in the free text field (Phoenix, 2023). There are also issues with the accuracy of certain variables, particularly ethnicity, which made taking an intersectional approach to the analysis more difficult.

The research has shown the benefit of breaking down the analysis into different relationship types, but the sample size was too low in some relationships to be able to find significant findings. Some relationships, such as parents perpetrating against their children, had to be merged into all familial relationship group. Other groups, such as adult children perpetrating against their parent would benefit from being split by age of the dyad, to incorporate the different theoretical motivations for their abuse. Future research would benefit from a larger dataset over a longer period of time.

The focus of this research has been knowing the likelihood of a repeat incident based on the first incident. This therefore excludes any further incidents beyond the second reported incident. Future research with a different focus may want to use alternative methods to identify those at risk of serial perpetration.

The research has also focussed on abuse between the same couple (dyad), but research that considers repeat perpetration could identify risk factors for perpetration against multiple victims.

The data used in this analysis pre-dates the introduction of coercive control legislation in 2015. It would therefore be useful to repeat this analysis with more recent data to see whether there have been changes in the nature of abuse reported since the introduction of the legislation.

## CONCLUSION AND IMPLICATIONS FOR POLICING

This individual-level analysis has not built a single profile but has recognized that there are several profiles of victims who report their abuse to the police. The most significant finding has been that the relationship between victims and perpetrators reflect different risks and patterns of abuse over the life course. Recognizing these different relationships means that in policing terms different service and solutions could be offered. For instance, where the victim is an ex-partner and they experience a high-risk incident, the research has found that the risk of a repeat incident is higher, whereas if the victim is a sibling the odds of a repeat are much lower. Therefore, a different approach to these victims may enable prioritization of resources and prevent further victimization.

Whilst individual DASH questions have not been found to have strong predictive validity for repeat victimization, creating a score and separating physical and coercive behaviour does predict the odds of repeat victimization and importantly exhibits different patterns across relationship types. Having an awareness of these differences could improve the response and outcomes for victims.

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## APPENDIX A: DOMESTIC ABUSE, STALKING, AND HARASSMENT AND HONOUR BASED VIOLENCE (DASH) RISK ASSESSMENT FULL QUESTIONS

| Variable name  | DASH risk questions  |
|----------------|--|
| Financial      | Are there any financial issues?  |
| Pregnant       | Are you currently pregnant or have you recently had a baby?                                |
| Depressed      | Are you depressed or having suicidal thoughts?   |
| Frightened     | Are you very frightened?   |
| Isolated       | Do you feel isolated from family/friends?  |
| Police trouble | Do you know if (. . .) has ever been in trouble with the police or has a criminal history? |
| Hurt others    | Do you know if (. . .) has hurt anyone else?   |
| Harassment     | Does (. . .) constantly text, call, contact, follow, stalk, or harass you?                 |

| Variable name                 | DASH risk questions  |
|-------------------------------|--|
| Sexual                        | Does (. . .) do or say things of a sexual nature that makes you feel bad or that physically hurt you or someone else?                              |
| Control                       | Does (. . .) try to control everything you do and/or are they excessively jealous?   |
| Strangle                      | Has (. . .) ever attempted to strangle/choke/suffocate/drown you?  |
| Hurt children                 | Has (. . .) ever hurt the children/dependants?   |
| Hurt animals                  | Has (. . .) ever mistreated an animal or the family pet?   |
| Perpetrator attempted suicide | Has (. . .) ever threatened or attempted suicide   |
| Threatened to hurt children   | Has (. . .) ever threatened to hurt or kill the children/dependants?   |
| Threat to kill                | Has (. . .) ever threatened to kill you or someone else and you believed them?   |
| Weapon                        | Has (. . .) ever used weapons or objects to hurt you?  |
| Drugs alcohol mental health   | Has (. . .) had problems in the past year with drugs (prescription or other), alcohol, or mental health leading to problems leading a normal life? |
| Injury                        | Has the current incident resulted in injury?   |
| Separated                     | Have you separated or tried to separate from (. . .) within the last 12 months?  |
| Worse                         | Is the abuse getting worse?  |
| Abuse more often              | Is the abuse happening more often?   |
| Any other person afraid of    | Is there any other person that has threatened you or that you are afraid of?   |
| Child contact                 | Is there conflict over child contact?  |

## APPENDIX B: OUTPUT AREA CLASSIFICATION DESCRIPTION

<http://geogale.github.io/2011OAC/>

1. Rural residents. The population of this supergroup live in rural areas that are far less densely populated compared with elsewhere in the country. They will tend to live in large detached properties that they own and work in the agriculture, forestry, and fishing industries. The level of unemployment in these areas is below the national average.
2. Cosmopolitans. The majority of the population in this supergroup live in densely populated urban areas. They are more likely to live in flats and communal establishments, and private renting is more prevalent than nationally. The group has a high ethnic integration, with an above-average number of residents from EU accession countries coinciding with a below-average proportion of persons stating their country of birth as the UK or Ireland.
3. Ethnicity central. The population of this group is predominately located in the denser central areas of London, with other inner urban areas across the UK having smaller concentrations. All non-white ethnic groups have a higher

representation than the UK average especially people of mixed ethnicity or who are Black, with an above-average number of residents born in other EU countries.

4. Multicultural metropolitans. The population of this supergroup is concentrated in larger urban conurbations in the transitional areas between urban centres and suburbia. They are likely to live in terraced housing that is rented—both private and social. The group has a high ethnic mix, but a below-average number of UK and Irish-born residents.
5. Urbanites. The population of this group are most likely to be located in urban areas in southern England and in less dense concentrations in large urban areas elsewhere in the UK. They are more likely to live in either flats or terraces, and to privately rent their home. The supergroup has an average ethnic mix, with an above-average number of residents from other EU countries.
6. Suburbanites. The population of this supergroup is most likely to be located on the outskirts of urban areas. They are more likely to own their own home and to live in semi-detached or detached properties. The population tends to be a mixture of those above retirement age and middle-aged parents with school-age children.
7. Constrained city dwellers. This supergroup has a lower proportion of people aged 5–14 and a higher level aged 65 and over than nationally. It is more densely populated than the UK average. People are more likely to be single or divorced. There is a lower representation of all the non-White ethnic groups and of people who were born in other EU countries.
8. Hard-pressed living. The population of this group is most likely to be found in urban surroundings, predominately in northern England and southern Wales. There is less non-White ethnic group representation than elsewhere in the UK, and a higher than average proportion of residents born in the UK and Ireland.

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